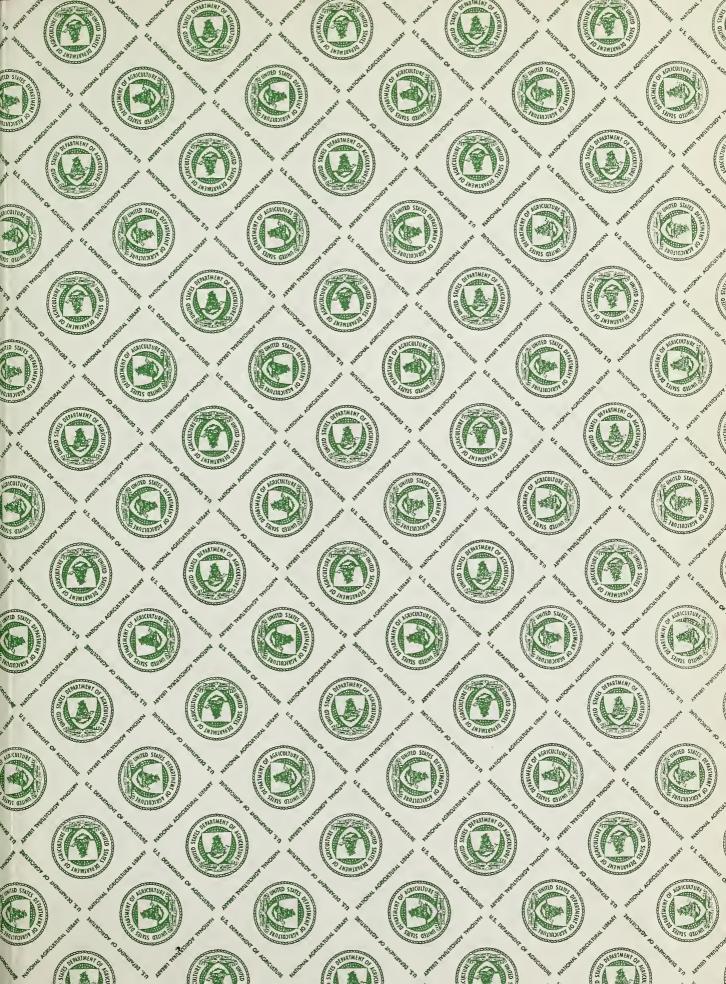
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FEDERAL-STATE COOPERATIVE

SNOW SURVEYS AND IRRIGATION WATER FORECASTS

for

Oregon

Ву

Division of Irrigation, Soil Conservation Service
United States Department of Agriculture
and
Oregon Agricultural Experiment Station

L. | E. T. A. FR Y

GUERRENT STULL RESERVE

FEB 23 1950

U.S. DEPARTMENT OF AGRICULTURE

Data included in this report were obtained by the agencies named above in cooperation with the Oregon State Engineer, U. S. Forest Service, National Park Service and other Federal, State and local organizations.

As of

FEB. 1, 1950



## 235901

### FEDERAL-STATE COOPERATIVE

SNOW SURVEYS AND IRRIGATION WATER FORECASTS

FOR

OREGON

Report Prepared

bу

W. T. Frost, Hydraulic Engineer and R. T. Beaumont, Assistant Water Forecaster

Division of Irrigation
Soil Conservation Service
and
Oregon Agricultural Experiment Station
P• O• Box 1149
Medford, Oregon



# INDEX TO SNOW COURSES

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N sme	INTERIOR DRAINAGE	SILVER LAKE	Silver Creek	CHEWAUGAN RIVER	Mill Creek	HARNEY BASIN	Deer Creek	Fish Creek Hart Mountain	Idylwild Park Izee Summit	Rock Spring	Snow Mountain	Starr Hidge	WARNER LAKE	Camas Creek	CUANO LAKE	Bald Mountain Cuano Creek	WEST COAST DRAINAGE	THEORY PINES	UMPQUA KIVER	Champion Diamond Lake	Coolaway Cap Coolaway Mountain	N.Jupoda near hake oreek Trap Creek Wheleheck	HISTEDSCK	ROGUE RIVER	Althouse	Big Red Mountain	Fish Lake	Goolaway Gap Goolaway Mountain	Grayback <b>Peak</b> Hobart Lake	Hyatt Prairie Reservoir		Seven Lakes No. 2	Silver Burn Siskivou Summit	South Fork Canal Wagner Butte	Wha leback
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Name	WILLAMETTE RIVER	Breitenbush Cascade Summit	Champion Charlton Lake	Hogg Pass McKenzie	Merion Forks	Santism Junction	wardo pake	KLAMATH LAKE BASIN	Annie Spring Billie Creek Divide	Chemult No. 1	Hyatt Prairie Reservoir	Lake of the Woods No. Quartz Mountain	Seven Lakes No. 1 Seven Lakes No. 2	Strawberry Summer Rim	Sun Mountain Taylor Butte		GOOSE LAKE BASIN	Camas Creek	Quartz Mountain Strawberry						INDEX TO THE CALIFORNIA OREGON	FOREN CONGRANI SNOW WALEN	NLAMAIR LAKE BASIN	Beatty Chemult	Chiloquin Crystal	Fort Klemath Kirk	Lake of the Woods	Quartz Mountain	Richardson Ranch Yamsey	GOOSE LAKE BASIN	Quartz Mountain
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Name	LOWER COLUMBIA DRAINAGE	WALLA WALLA RIVER	Tollgate	UMATILLA RIVER	Dank and the County of the Cou	Lucky Strike	Meacnam Tollgate	WILLOW CREEK	Arbuckle Mountain	TOTAL DAW DITHER	סטווא דאר אבא	Arbuckle Mountain Beech Creek Summit	Blue Mountain Spring Blue Mountain Summit	Dixie Springs Gold Center	Izee Summit Olive Lake	Snow Mountain Starr Ridge	DESCHITTES RIVER	2.2 3.1.1.2 Part 1	Cascade Summit	Charlton Lake Clear Lake	Crescent Lake Derr	hogg rass Marks Creek Now Dutchmon Flat	New Dutchman Flat Oohoo Meadows	Rock Creek	Tamarack	Three Creeks Meadows	HOOD RIVER Brooks Mendows	Red Hill Tilly Jane-Mt. Hood	SANDY RIVER	Clear Lake	Phlox Point-Mt. Hood	Still Greek	CLACKAMAS RIVER	Clackamas Lake Peavine Ridge	
Number			212		222	223	212		277	Į.	;	241 246A	£ 13			965 2478		ò	325	327	373	347	341 341	362	3,42	155	431	127 128 138	•	341	725	451		592 591	
Elev.			6800	6800 8200	7900	0099	7000	7800 700 <b>0</b>	7000	6900	5200		2900	5375 5120	5100		5950	5098	54.50 5100		7125	5430 5400	5340	6775	5740		2400		752		0	7000	7125 5340	5970 5850	5740 5070
Name	UPPER DOLUMBIA DRAINACE Lower Spake in Oregon	OWYHEE RIVER	Big Bend	Buokskin, Lower Buokskin, Upper					Rodeo Flat	Silvies	South Mountain No. 22 Taylor Canyon	MALHEUR RIVER	Blue Mountain Spring	Crane Prairie Lake Creek	Rock Spring Stinking Water	BURNT RIVER	Barney Creek	Blue Mountain Summit	Dooley Mountain Tipton	POWDER RIVER	Anthony Lake	Dooley Mountain Filertson Meadows	Gold Center	Goodrich Lake	Taylor Creen	PINE CREEK	Schneider Meadows	INNAHA RIVER	Coverdale	GRANDE RONDE RIVER	Amount of Lotes	Anerold Lake No. 2	Anthony Lake Beaver Reservoir	Comp Carson Moss Spring	Summit Springs Taylor Creen Tollgate
Number			Nov. 6	Nev. 1		Nov.		Nev. 10	Nev. 8	951	Nev. 12		133		134		271	17.	176		155	156 156	249	157	185		191		171						185 212

### February 1, 1950

### PRELIMINARY WATER SUPPLY OUTLOOK

Oregon's 1950 water supply outlook, as of this mid-winter date, appears to be generally excellent with the exception of the Owyhee, Malheur, Burnt, Powder and Silvies drainages where mountain snow-cover has so far failed to accumulate to satisfactory depths. The snow blanket on the Cascades is already considerably above normal in water content and could produce extremely high winter or spring streamflows especially in the Willamette Basin if combined with heavy rains and above normal temperatures over the range. Reservoired water supplies are generally "good" to "excellent" except in the Warmsprings, Agency Valley, Ochoco, Gerber and Clear Lake reservoirs which now hold "fair" supplies.

Water content of mountain snow-cover, as of February 1, averages 172 percent of normal throughout the state with heaviest accumulations in the Cascades. Snow in the high elevations of the Cascados now holds as much water as at this time last year with much more than last year in the lower areas. Now records of water content of the snow for February 1 were established at nine courses. Throughout the state the snow above 5000 feet is 94 percent of last year and 133 percent of average. Below 5000 feet the snow is 126 percent of last year and 227 percent of average.

Watershed soils in the Cascades are well-wetted due to heavy rains in January which penetrated the snow-cover across the range. In central, southeastern and southcentral portions of the state the soils are not so wet and will probably absorb the earliest part of the snow-melt before runoff can begin.

Total water stored in all reservoirs is 6 percent less than last year, 1 percent less than in 1948 and 19 percent less than average. Only one-third of the more important reservoirs are half full or better. Reservoirs in the main Deschutes drainage are especially well filled.

A tabulation of preliminary streamflow forecasts is presented on pages 2 and 3 of this report. Other series of snow measurements and forecasts will be published in reports to be issued on March 9 and April 9.



### PRELIMINARY STREAMFLOW FORECASTS, FEBRUARY 1, 1950

The following preliminary runoff forecasts are based on present mountain snow cover and on the assumption that average February and March increase of snow cover will occur. Greater or less than average increase in mountain snow cover during the next two months will correspondingly modify these estimates:

	AprSer	t.inc.	Streamflow	in Thous	· Ac · Ft ·
BASIN AND STREAM	Forecast		asured Run		O-yr. Avg.
	1950	1949	1948	1947	1939-48
NORTHCENTRAL OREGON					
Hood River, W. Fk. near Dee	210.0	а	158.1	111.1	130.0
UMATILLA-WALLA WALLA					
Walla Walla R.So.Fk. nr. Milton	70.0	a	102.1	62.7	66 •2
Umatilla R. at Pendleton	180.0	a	311.3	96.4	161.9
McKay Cr. above McKay Reservoir	30.0	a	63.4	16.1	28.6
NO DOLLA GERMI O DEGON					
NORTHEASTERN OREGON Grande Ronde Ronde LaGrande	105.0	_	700 0	<b>110</b> 0	177 0
Catherine Cr. near Union	195.0	a	366.2	118.8	173.9
	77.0	a	109.9	60.9	68 •8
Bear Cr. near Wallowa	80.0	a	97.4	69.6	68•6
Lostine R. near Lostine	140.0	a	153.5	127.7	118.9
Hurricane Cr. near Joseph	48.0	а	59.4	49.9	43.6
Wallowa R. E. Fk. plus Power Pl.	12.0	a	15.7	10.4	11.0
Imnaha River at Imnaha	365.0	a	451.2	228.1	286.5
Burnt R.	30.0	а	62.7	20.2	37 •6
EASTERN OREGON					
Malheur R. Mid.Fk. nr. Drewsey	42.0	а	74.0	34.0	71.4
Malheur R. N.Fk. at Beulah	36.0	а	64.4	32.7	57.3
Owyhee R. above Owyhee Reservoir	325.0°	а	280.6°	$216.4^{ m c}$	486.7°
Strawberry Cr.nr. Prairie City	6.5	a	11.0	7.9	8.0
HARNEY BASIN					
Silvies R. near Burns	42.0	a	133.1	47.7	90.2
CHIERLY OF THE CASE					
CENTRAL OREGON					
Ochoco Reservoir Net Inflow	25.0	а	72.3	8.2	24.7
Crescent Lake Net Inflow	25.0	a	27.4	19.2	14.6
Odell Cr. near Crescent	35.0	34.9	34.7	28.8	25.3
Tumalo Creek and C.S. Canal	53.0	а	53 <b>.2</b>	49.1	43.4
Squaw Cr. near Sisters	62.0	a	56.5	45.7	43.9
SOUTHCENTRAL OREGON					
Deep Creek Above Adel	50.0 <sup>b</sup>	a	70.8 <sup>b</sup>	29.1 <sup>b</sup>	55•6 <sup>b</sup>
KLAMATH BASIN				•	
Upper Klamath Lake Net Inflow	525.0	407.8	461 <sub>•</sub> 5	326.2	454.8
	02010	101.0	#OT •O	0200	101.0
SOUTHERN OREGON					
Hyatt Res. Net Inflow	6.5	a	9.1	2.1	5.1
Fourmile Lake Not Inflow Little Butte Cr.N.Fk. below	8.0	а	11.0	6.0	7.2
Fish Lake (Natural Flow)	15.0	а	16.2	10.1	13.0
(111 202 312 1 2011 )	100	u	TO • C	TOPT	TO • O

a- Discharge Data not available

b- April-June rather than April-Sept.

c- March-July only



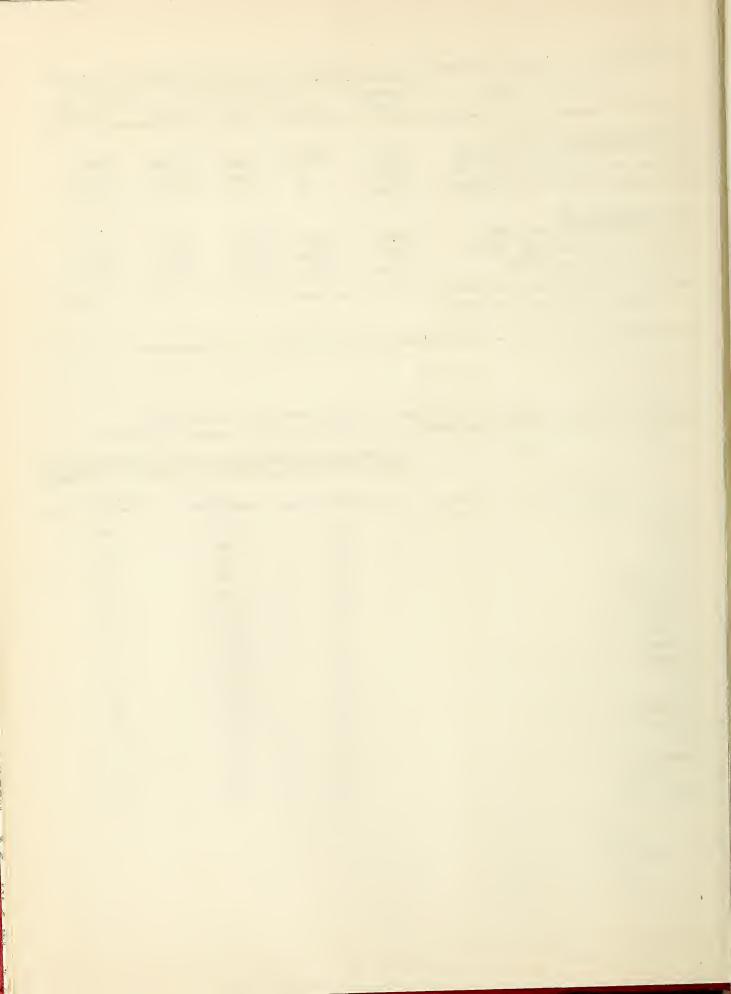
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	AprSept	.,inc. S	treamflow	v in Thous	· Ac · Ft ·			
BASIN AND STREAM	Forecast	Mea	sured Run	ured Runoff 10-yr. Avg				
	1950	1949	1948	1947	1939-48			
GOLDENTIDA O DEGON (G++-1)								
SOUTHERN OREGON (Cont'd)	7.00	785 5	717 17	0.40.0	0.50			
Rogue R. N.Fk. above Prospect	360.0	375.5	343 <b>.7</b>	248 •8	276.4			
Clearwater River above Trap Cr.	63.0	а	67.4	61 •4	58 <b>•</b> 5			
No. Umpqua R. below Lake Creek	160.0	а	174.3	157.0	149.8			
WILLAMETTE VALLEY								
Willamotte R.Mid.Fk.at Eula	1160.0	1019.2	1025.9	737.1	717.6			
McKenzic R.at McKenzie Bridge	720.0	716.4	580.0	490.0	496.4			
McKenzie River near Vida	1600.0	1516.7	1419.5	1084.2	1065.8			

a- Discharge Data not available

The following table gives a comparison of 1950 snow-water content with February 1, 1949 and 1948 and with the average for major Oregon drainages:

	1950 Snow Water	content as	Percent of that in
Drainage	1949	1948	Average
Owyhee	90	147	89
Malheur	85	156	117
Burnt	80	112	103
Powder	57	69	72
Grande Ronde	83	109	118
Walla Walla	70	100	122
Umatilla	73	115	136
John Day	92	13 <b>7</b>	131
Deschutes	139	339	244
Crooked	114	206	190
Hood	119	241	228
Sandy	101	181	232
Willamette	114	330	273
Umpqua	135	353	278
Rogue	112	221	143
Klamath	123	246	145
Goose Lake	82	340	124
Harney Lake	79	137	108



### STATUS OF SNOW COVER AS OF FEBRUARY FIRST Summary of Snow Survey Data By Watersheds as of About February First

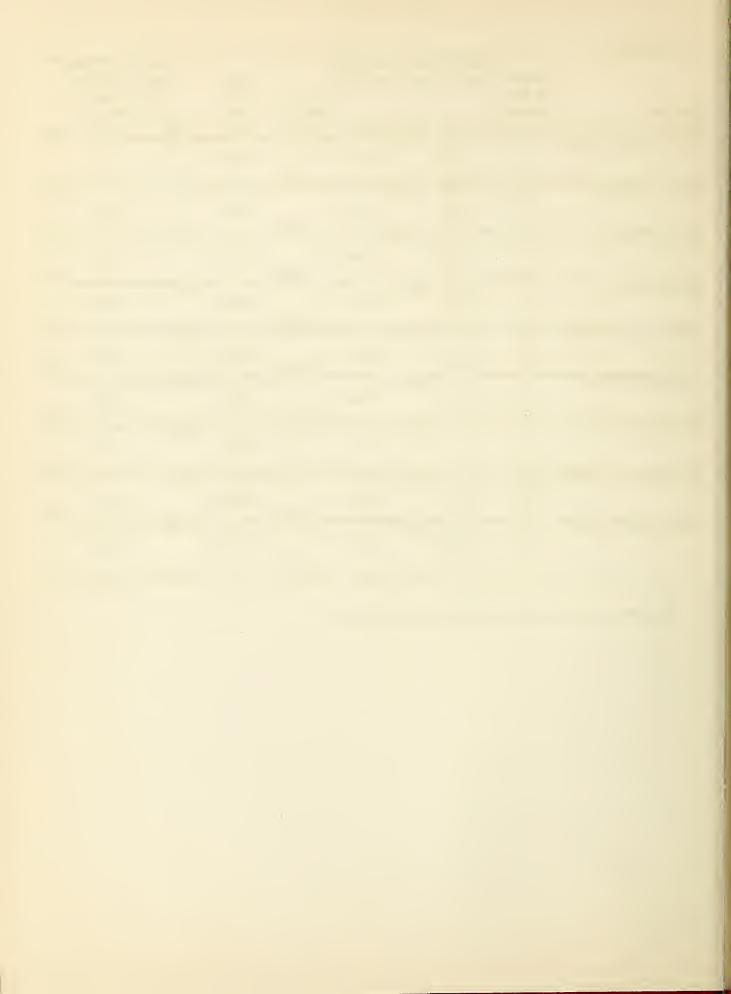
		verage						Snow Wat	
	Number	Snow C	over (			Yrs.		n (Inches	;)
	of Snow				.vg. past			Percent	
Stream	Courses				yrs. of			that in	
Basin	Averaged			1948	record	ord	1949	1948	Avg.
Owyhee River	1	7.5	8.3			( - )	90		
	3	7.5		5.1		(9)		147	
	1	7.5			8.4				89
Malheur River	3	6.1	7.2			/ >	85		
	3	6.1		3.9		(19-9)		156	
	3	6.1			5.2				117
Burnt River	2	6.5	8.1			(	80		
	3	6.5		5.8		(11-15)		112	2.00
	3	6.5			6.3				103
Powder River	2	8.6	15.0	- 0 4		(0.77)	57	20	
	5	8.6		12.4		(9-11)		69	<b>F</b> 0
Tr. A. I	6	8.6	07 6		12.0		0.7		72
Pine Creek	1		21.3	350		(10)	83	110	
	1	17.6		15.2	10.0	(12)		116	0.4
7	1	17.6	00.7		18.8				94
Imnaha River	2		20.3			(00.0)	111	107	
	2	22.5		18.3		(20-8)		123	107
Consider Davids Disease	2	22,5	10 2		18.3		0.7	-	123
Grande Ronde River		16.1	19.3			(4 07)	83	1.00	
	8	16.1		14.8	17 0	(7-21)		109	770
Walla Walla River	8	16.1	00 7		13.6	·	70		118
walla walla kiver	1	20.5 20.5	29.1	20 5		(10)	70	100	
	1 1			20.5	16.8	(18)		100	100
Umatilla River	4	20.5	16.9		70.8		73		122
Chacilla River	3	12.4	10.9	10.8		(10-21)	10	115	
	4	12.4		10.0	9.1	(10 21)		113	136
Willow Creek	<del>1</del>	10.7	9.5		3.1		113		100
WILLOW CIEER	1	10.7	3.5	7.3		(20)	110	147	
	1	10.7		7.0	7.3	(20)		7.7.1	147
John Day River	8	8.9	9.7		1 •0		92		7 2 1
com bay mayor	8	8.9	3.1	6.5		(9-20)	35	137	
	8	8.9		0.0	6.8	(3 20)		101	131
Deschutes River	4	34.9	25.1				139		
500011000 1IT AOI	5	34.9	20.1	10.3		(2-19)	100	339	
	10	34.9		10.0	14.3	(2 10)		500	244
Crooked River	3	9.5	8.3				114		~ ~ ~ ~
	3	9.5	0.0	4.6		(12-20)		206	
	4	9.5			5.0	(22 20)		200	190
Hood River	<del></del> i	39.6	33.2				119		
	- 3	39.6		16.4		(1-2)		241	
	4	39.6			17.4	(3 5)		., ., .,	228
Sandy River	2	44.3	43.9				101		
	2	44.3		24.5		(12)		181	
	3	44.3			19.1	(34)			232
Willamette River	5	35.0	30.8				114		
	8	35.0		10.6		(9-19)		330	
	11	35.0			12.8	` '			273



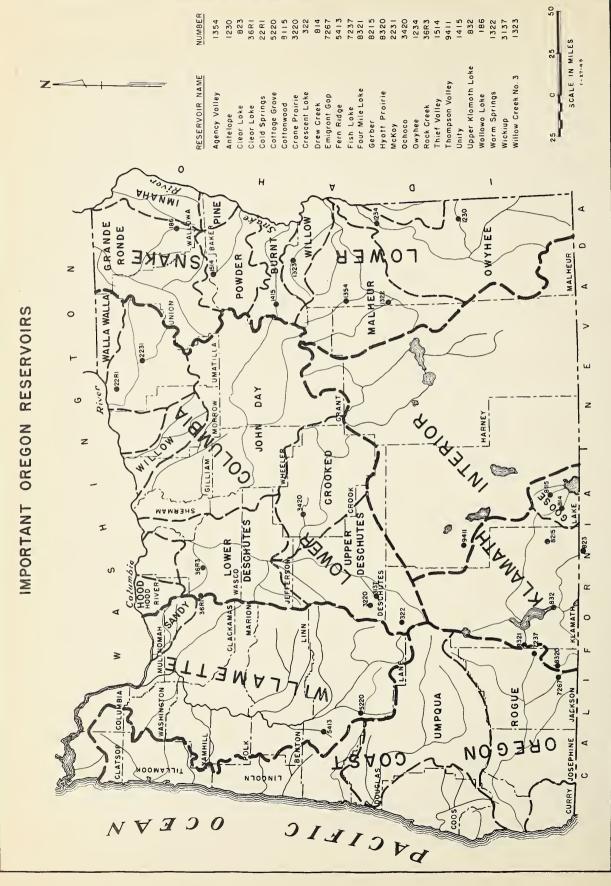
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( oonernaea)										
Average Water Depth in 1950 Snow Water										
	Number S	Snow Co	ver (I	nches)		Yrs.	Deptl	ı (Inche:	s)	
	of Snow				Avg. past	of	as	Percent		
Stream	Courses				yrs. of	Rec-	$\circ \mathbf{f}$	that in		
Basin	Averaged	1950	1949	1948	record	ord	1949	1948	Avg.	
Silver Lake Basin	1	4.7	4.4				107			
	. 1	4.7		0.0		(10)		-		
	1	4.7			2.5				188	
Warner Lake	1	6.5	9.3				70			
	1	6.5		3.9		(11)		167		
	1	6.5			6.7				97	
Harney Basin	4	5.2	6.6				79			
	5	5.2		3.8		(17-14)		137		
	7	5.2			4.8				108	
Umpqua River	4	31.1	23.0				135			
	3	31.1		8.8		(10-21)		353		
	5	31.1			11.2				278	
Upper Rogue River	11	19.0	17.0				112			
	12	19,0		8.6		(4-17)		221		
	15	19.0			13.3				143	
Applegate River	1	15.7	16.0				98		-	
	5	7.5 7		7.9		(14)		199		
	2	15.7			13.0				121	
Illinois River	2	11 34	8.5				134			
	-	\$rr4		-		(11)		-		
	2	11.4			7.8				146	
Klamath Lake Basir		12.3	10.0				123			
	21%	12.3		5.0		(1-23)		246		
	24%	12.3			8.5				145	
Goose Lake Basin	34.	6.8	8.3				82			
	33'	6.8		2.0		(11-20)		340		
	44	6.8			5.5				124	

<sup>\*</sup> Including Copco water measurement stations.







SOIL CONSERVATION SERVICE

STATUS OF RESERVOIR STORAGE, FEBRUARY 1, 1950

BASIN		1	HOUSANDS	ACRE FEE	T IN STOR	RAGE ABOU	T FEB. 1
and STREAM	RESERVOIR	CAPACITY (Thous • A • F • )	1950	1949	1948	1947	10 year avg. 1939-48
		UPPER COLUM					
		LOWER SNAK	E IN ORE	JON			
Owyhee	Antelope	36.5	$N \cdot R \cdot$	0.0	3.8	2.8	
	Owyhee	715.0	377.6	270.9	310.1	467.4	472.5
Malheur	Warm Springs	191.0	13.0	14.1	25.0	97.5	96•4
	Agency Valley	60.0	19.0	35,2	35 • 6	35.2	38.7
Burnt	Unity	25,2	2.6	8,5	4.6	8.1	9.1
Powder	Thief Valley.	17.4	N•R•	2.1 <sup>e</sup>	17.4	15.6	12.4
Grande Ronde	Wallowa Lake	40.9	12.5	19.0	18.1	25.4	21.7
		LOWER COLU	MBIA DRA	INAGE			
Umatilla	McKay	74.0	25.2	26.2	53 <b>.7</b>	48.9	36 •6
	Cold Springs	50.0	21.0	23.8	38.2	32.9	29.1
Deschutes	Ochoco	46.0	1.8	31.2	20.9	25.0	18.2
	Crescent Lake		54.2	52.4 <sub>f</sub>	43.8	49.0	36.6
	Crane Prairie		35.0 <sup>k</sup>	34.8	39.4	41.4	31.2
	Wickiup	180.0	172.4	161.I	122.2	68.8	47.3 <sup>g</sup>
Willamette	Cottage Grove	30.1,b	0.1	0.0	0.3	0.0	0.1g
***************************************	Fern Ridge	94.2 <sup>b</sup>	55.9	1.2	1.5	0.0	10.4 <sup>n</sup>
		WEST COAS	T DRAINAC	Œ			
Rogue	Fish Lake	7.7	4.6	5.0	3.2	4.0	4.2
	Fourmile Lake	16.0	6.8	7.2	2.1	4.5	5.7
	Emigrant Gap	8 • 2	4.0	5.3	8.3	2.3	4.9
	Hyatt Prairie	16,0	3 •7	7.0	2.7	2.1	4.6
Klamath	Upper Klamath	Lake584.0°	248.0	271.6	283.3	243.8	330.5
	Gerber	94.0	15.4	14.6	20.9	29.2	36.0
	Clear Lake	440-2	102,8	135.4	145.1	203.2	224.2
Goose Lake	Cottonwood	4.1	0.4	0.0	0.0	0.0	0.1i
	Drew	62,5	36.2	36 •5	22.3	24.8	31.6 <sup>j</sup>
		· · · · · · · · · · · · · · · · · · ·			<del></del>		

N.R. - No Report

a - By ditch to Rogue River side from Klamath drainage

b - Storage space reserved for flood control

o - Based on gage zero elevation of 4135.0

d - Excl. :43

e - Jan. 15

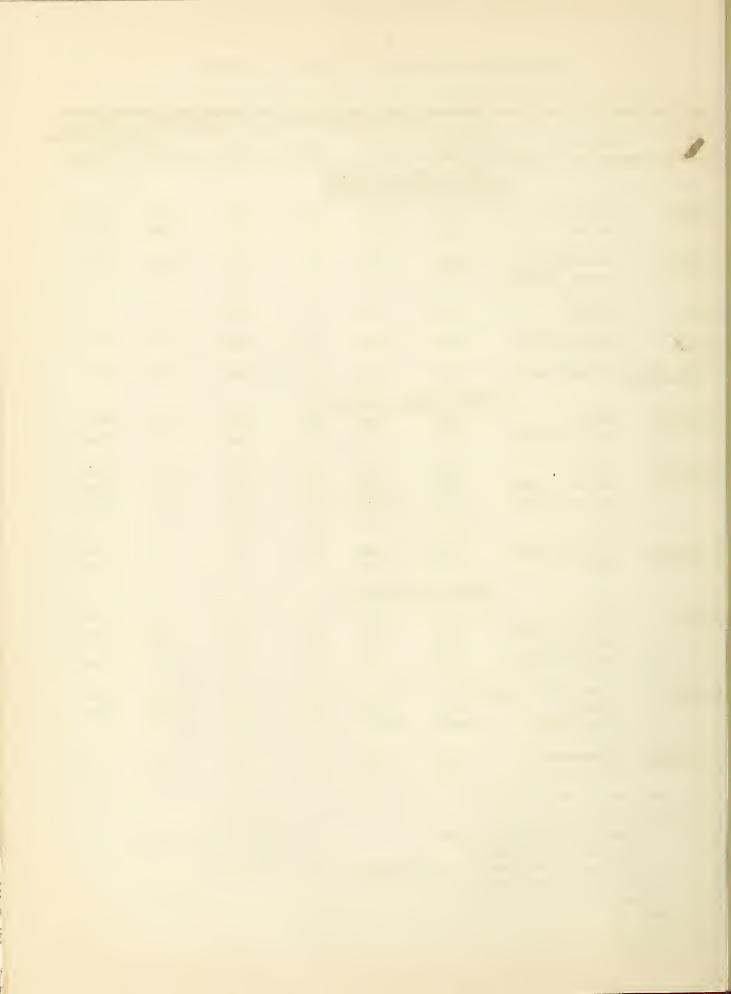
f - Jan. 12

g - 1943-48

h - 1942-47

i - Excl. '38, '42, '46

j - Excl. '46 k - Estimated



### VALLEY PRECIPITATION<sup>a</sup>

DRAINAGE DIVISIONS		ENT YEAR - Feb. 1, 1950	LAST YEAR Oct. 1, 1948 - Feb. 1, 1949				
	P	D D	P	<b>p</b>			
Southeastern	3.65	-0.70	2.79	-1.13			
Southcentral	2.83	-1.39	3.33	-0.80			
Central	10.20	+1.05	5.31	+0.19			
Columbia River	8,62	+0.62	7.62	-0.29			
Wallowa Mountains	6.67	+0.28	5.39	-0.71			
Blue Mountains	7.04	+0.35	6.10	-0.23			
Southern	12.94	-0.19	10.87	-1.86			
Willamette Valley	32 •26	+4.83	27.59	-0.90			

P - Inches Precipitation

D - Inches Departure from Normal

Southeastern - Malheur and Owyhoe drainages.

Southcentral - Interior Basin drainages and Goose Lake.

Central - Deschutes and Crooked drainages.

Columbia River - Lower valleys of the Walla Walla, Umatilla, John Day,
Deschutes and Hood River drainages.

Wallowa Mountains - Imnaha, Wallowa, Catherine, Eagle and Pine drainages.

Blue Mountains - Upper valleys of the Burnt, Powder, Grande Ronde, Umatilla, Walla Walla, John Day, Silvies and Malheur drainages.

Southern - Umpqua, Rogue and Klamath drainages.

Willamette Valley - All Willamette drainages.

a - Preliminary data computed from Weather Bureau records.



		Record	Av.Water	Content	(Inches)		
	MIS	(In.) Past Record	Years	¢∓ O	Record		
	SNOW COVER MEASUREMENTS	t (In.)			1948	5 <b>]</b>	ZI.
	COVER M	Water Content			(In.) 1950 1949 1948	DRAINAG	O E E G O
1950	SNOW	Water			1950		21
BRUARY,			Snow	Depth	Í	M H H H	
VEYS, FE			Date	of	Survey	COLUMBIA	N N N N N N N N N N N N N N N N N N N
OLEGON SNOW SURVEYS, FEBRUARY, 1950	LOCATION		Number	or	State Sec. Iwp. Range Elev.	고 요 요 요	LOWER
			DRAINAGE BASIN and	SNOW COURSE			

OWYHEE RIVER

8.4 Survey 5.8 8.4 Survey		0 4 8 0 4 9		5.8 6.1 7.1		6.1 6.9 7.3 23.6
l February 1 9 February		10 17 12		15		111 00 0
8.4 No previous 5.8 10.6 5.1 No previous		7 3 • 0		0 4 0 5 0 4		22 0 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
8.4 No pr 5.8 10.6 No pr		11.0 5.8 4.0		8 2 3		7 8 8 8 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
7.05 4.05 7.05 7.05 7.1		0.4 0.4 0.0		7.0 5.9 layed	*	5.9 11.3
27 .0 20 .0 30 .0 23 .0		42.0 25.4 19.4		1-31 29.3 7.0 1-31 24.5 5.9		1-31 24.5 5.9  Not measured 1-31 43.6 11.5  Measurement delayed
2-2 2-2 1-31 2-4		1-27 1-29 1-30		1-31 1-31 Measur		1-31 Not mea: 1-31 Measure:
6700 6800 6600 6340 7000		5900 5100 4800		5098 5430 5100		5430 5400 5340 6775
56E 54E 56E 5W 5W		35E 32E 34E		36E 40E 352E		40 <b>E</b> 38E 36E
45N 45N 45N 7S 43N		155 185 215		128 118 108		200 200 200 200 200 200 200 200 200 200
30 32 35 35		23		32 45		32 18 21 24 835
Nev•6 Nev•7 Nev•5 Idaho Nev•8		133 134 135		141 156 142		156 151B 249 157 3
Big Bend Fry Canyon Gold Creek South Mountain No. 2 Rodeo Flat	MALHEUR RIVER	Blue Mountain Springs Rock Spring Stinkingwater	BURNT RIVER	Blue Mountain Summit Dooley Mountain Tipton	FOWDER RIVER	Dooley Mountain Eilertson Meadows Gold Center Goodrich Lake

<sup>\*</sup> Telegraphic - Subject to minor revision.



		LOCATION	TOI				SNC	SNOW COVER MEASUREMENTS	MEASU	REMEMTS		
						1		Water	Content (In.	$t \text{ (In} \bullet)$	Past R	Record
DRAIMAGE BASIN	Minmhor	ş					Snow				¥69 %	Agr. Water
SHOT COURSE	Or	1.				of	Depth				of	Content
	State	Sec.	Twp	Range	Eleve	. Survey	(In.)	1950	1949	1948	Record	(Inch es)
The party of the party												
FINE CKEEK												
Schneider Meadows	161	35	68	45E	5400	1-31	74.5	17.6	21.3	15.2	15	18.8
GRANDE RONDE RIVER												
Aneroid Lake No. 1	183	16	S <sub>±</sub>	45E	7480	1-28	82 • 7	26.2	23.3	20.0	20	19.1
No.	183A	16	48	45E	7000	1-28	59.8	18.8	17.4	16.5	ω	17.4
Anthony Lake	155	18	78	37E	7125	Not me	Not measured	*	24.0	18.0	91	18.9
Beaver Reservoir	188	∞ ;	5 S	37E	5340	2-1	36.4	11.5	14.2	တ္ဖ	1.1	က် ရ
Camp Carson		33	6S	36E	5970	1-29	35°8	9•6	11.5	7.1	· ·	J.• 9
Meacham		24&25	15	35E	4300	1-27	38.7	9•4	13.5	6.5	27	6•1
Moss Spring	186A	23	38	41E	5850	2-1	52.3	16.7	21.5	21.5	12	15.1
Tollgate	212	32	41	38臣	5070	1-27	75.2	20.5	29.1	20.5	18	16.8
				미	IN IN	COLUM	BIA	DRA I	I M A G	<b>幽</b>		
WALLA WALLA RIVER												
						,				1	¢	C F
Tollgate	212	32	4N	38日	5070	1-27	75.2	20.5	29.1	20.5	<b>1</b> 8	16.8
UMATILLA RIVER												
Emigrant Springs	222	83	I	35臣	3925	1-27	37.5	8.9	13.7	5.4	21	5.8
Lucky Strike	223	28	38	32臣	5050	1-26	40.8	10.9	11.2	ı	10	7.8
Meacham	221	24&25	18	35E	4300	1-27	38.7	9.4	13.5	6.5	21	6.1
Tollgate	212	32	4	38E	5070	1-27	75.2	20.5	29.1	20.5	8 -1	16.8
WILLOW CREEK												
Arbuckle Mountain	241	33	\$₽	29臣	5400	1-31	38.2	10.7	9.5	7.3	20	7.3
* Telegraphic - Subject to minor revision	ct to m	inor r	evisi	on								

OREGON SHOW SURVEYS, FEBRUARY, 1950



		TO	LOCATION					SNOW CO	SNOW COVER MEASUREMENTS	SUREME	SLI	
DRATNAGE BASTN								Wa	Water Content (In.)	cent (I		Fast Record
and	Number					Date	Snow				Years	Av.Water
SNOW COURSE	or						Depth				0 £	Content
	State	Sec	Sec. Twp.	Range	Elev.	Survey	(In.)	1950	1949	1948	Record	(Inches)
JOHN DAY RIVER											,	
· · · · · · · · · · · · · · · · · · ·	ŗ	i C	ţ	Ţ.	0	,	6	1		i		
Arbuckie Mountain	241	55	4	五の2	5400	1-31	28.5	10.7	ಲ ಪ್	7 •3	20	7.3
Beech Creek Summit	246A	4	123	30区	4800	1-31	24.6	9.7	2 •0	2.5	13	3.8
Blue Mountain Springs	133	27	158	35E	2900	1-27	45.0	9.1	11.9	7.0	9 13	9•6
Blue Mountain Summit	141	9	128	36E	5098	1-31	29.3	200	8.9	6.2	15	5.8
Gold Center	249	21	98 S	36E	5340	1-31	43.6	11.3	8.6	8 .c	o,	7.3
Izee Summit	964	28	168	29压		1-30	35.0	7.4	8.9	6.2	14	5.8
Olive lake	245	14	98	33 <u>3</u> E	6000	1-31	51.7	12.7	17.0	12.0	14	10.7
Starr Ridge	247B	20	158	31E	5150	1-30	25.3	0•9	6.4	2.6	14	4.0
CROOKED RIVER												
Derr	343	14	138	23压	5670	1-31	39.6	10.5	7.8	5.9	12	0.9
Wark's Creek	344	25	125	19E	4540	2-1	33.1	7.9	5.0	1.8	12	3.2
Ochoco Meadows	341	21	138	20臣	5200	2-1	45.4	10.1	11.3	0•9	20	6 <b>•</b> 8
DESCHUTES RIVER												
Caldwell Ranch	326	30	218	8E	4400	Measurement		delayed	9.6	ı	ω	5.6
Cascade Summit	321	2	233	6E	4880	1-30	109.2	33.3	32.1	13.8	19	19.1
Charlton Lake	327	23	218	<b>E</b>	5750	Measurement	ement d	elayed	ı	ı	9	10.9
Clear Lake	361	53	45	36	3500	Not me	Not measured		1	ı	B	10.5
New Dutchman Flat	324A	21	188	9臣	6400	2-2	117.0	45.6	ŧ	ı	2	31.6
Hogg Pass	351	24	138	$7\frac{1}{2}$ E	4755	1-31	132.6	42.1	43.4	21.3	12	23.6
Three Creeks Meadows	331	3	178	<b>三</b> 6	2600	2-3	62.1	21.4	ι	6.4	17	10.4
HOOD RIVER												
Greenpoint Reservoir	433	28	ZN	96	3400	Measur	Measurement delayed	elayed	i (	7.4	Н (	7.4
red Hill Tilly Jane - Mt. Hood	434 432	12	23 23	五日 6	6000	Measurement 1-29 118.	118.8	delayed 8 39•6	41.6	18.4	v cv	30.0

OREGON SNOW SURVEYS, FEBRUARY, 1950



1950	
FEBRUARY.	
SURVEYS,	
SNOW	
OREGON SNOW	

				auo	GOIN ONOW	OREGON SNOW SURVEIS,	ಗಿ ಪ್ರವಿಗೆ ೧					
		LOCALT	TION			ļ	SS	SNOW COVE	R MEASU	COVER MEASUREMENTS		
DRAINAGE BASIW								Water	Water Content	(In•)	Past	Fast Record
and SNOT COURSE	Number	J.				Date of	Snow Depth				Years	Av Water Content
	State		Sec. Two.	Range	Elev.	Survey	(In•)	1950	1949	1948	Record	(Inches)
SANDY RIVER												
	261	29	\$ <del>1</del>	<b>三</b> 6	3500	Not measured	asured	<del>*</del>	•	1	co (1	10.5
Fhlox Foint-Mt.Hood Still Creek	452 451	25	83 83 83 83	로 연 연 연 연 연 연 연 연 연 연 연 ල ල ල ල ල ල ල ල	5600 3700	2-18 2-18	147 • 7 93 • 8	56.7	31.5	36.4	12	34.1
CLACKAMAS RIVER												
Clackamas Lake	265	35	50	8沙正	3400	Not measured	asured		1	ı	9	9•9
Peavine Ridge	591	14&15	89	7臣	3500	Measur	Measurement delayed	layed	19•0	₹•9	12	9•∉
WILLAMETTE RIVER												
Breitenbush	551	21	88	7正	2325	Measurement		delaycd	1	1.6	7	3.5
Cascade Summit	321	7	238	9 E	4880	1-30	109.2	33°53	52.1	13.8	67	19.1
Champion	522	12	238	H	4500	Z-1		38.52	51.1	O 0	‡ ՝	13.4
Charlton Lake	327	23	218	9 E	5750	Measurement		delayed	1	1 6	o (	10.9
Hogg Pass	251	24	138	7空压	4755	1-31	132.6	42.1	43.4	21.5	2T	23.6
McKenzie	521	35	15.5	7 記 記 記	4800	Measur	Measurement delayed	layed	41.4 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	O.₽.2	<b>o</b> o	T•02
Marion Forks	3 5 5 1	χ, ς	T T T	) E	0878	10-1 Mot	1-51 92.9	27.	7.07	) • • •	א כ	а • •
Mary s reak Santiam Innetion	5552 5552	77	227	7 E	0700	1-31	104.3	33 Sp	28.8	4 o	O 0:	14.4
Waldo Lake	521A	15	218	9.	5500	Measur	Measurement delayed	layed	1	1	വ	7.4
				H	TERI	OR D	RAIN	A G				
					l I	l I	 	l				
SILVER LAKE												
Silver Creek	842	25826	298	13臣	4900	1-29	16.1	4.07	4.4	0.0	10	2.5
* Telegraphic - Su	Subject to minor	to mind		revision.								

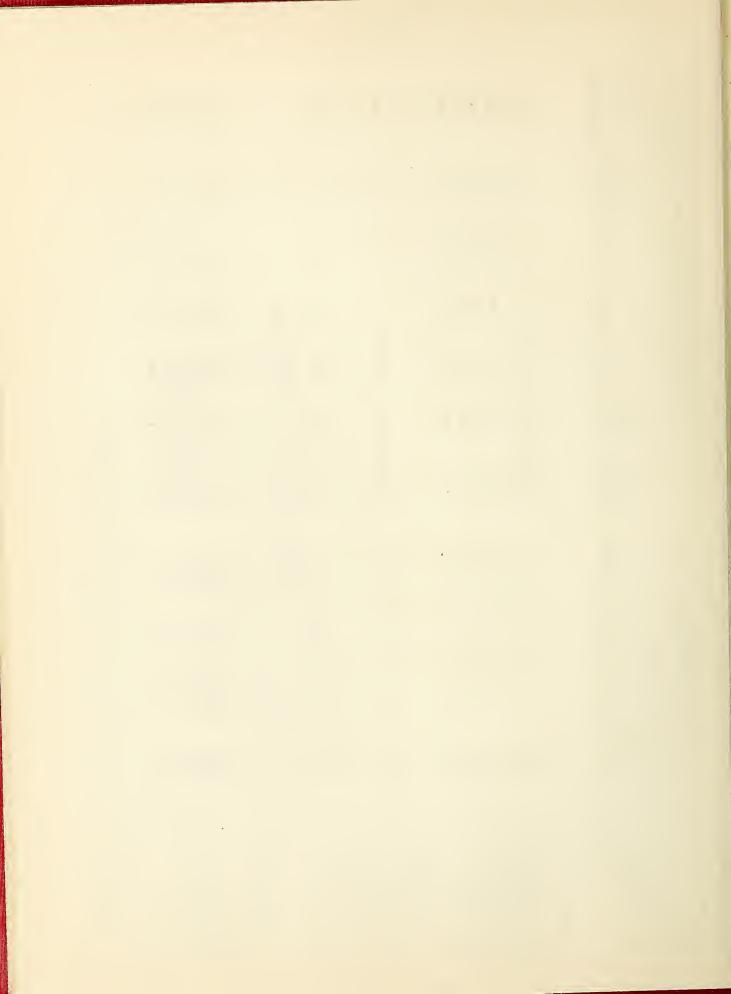
About February 1, 1950 Greatest February 1 water content recorded since surveys began. ದ ಬ



		IO	LOCTTON				SION	SNOT COVER MELSUREMENTS	LSUREM	SINTS		
								Water Content	onicent	(I:1.e)	Past Record	cord
DELINIGE BASIN						-	c				4. A.	
and	Namber					na ce	MOIJC				rear s	AV Water
SNOW COURSE	or	č	E	C	ر ا	o f	Depth (Till)	0	(	(	oî ,	Content
	State	vec.	TWD	Kang e	Elev.	Survey	(Tu•)	1950	T9⊈9	1948	Kecord	(Inches)
HARNEY BASIN												
Deer Greek	97.3	17	368	26五	6670	Meas	Meas Suspended	Indef		t	ις	6 4
	07.1	ï	0 0	のに対	6250	Mese	Meas Suspanded	Thank	,	,	کا (	20.00
Tarle Mouncain	7 1 6	4 6		20 20 20 20 20 20 20 20 20 20 20 20 20 2	000 000 000 000 000 000 000 000 000 00	2-1-C	St. A	- 1140 - 12 - 12	1 6	0	٥ - ٢	2 KV
Aura array	17 00		2 00	100	0 0 0 U	3 F	1 14 14 14 14 14 14 14 14 14 14 14 14 14	1 5	2 0	1 u	- <	) (d
Lzee Summite	304 204	0 0	2 0	たい 日 6 7	3 (0)	) (	) ( ) ( ) (	# c	о с •	3 (	4 e	) r
Rock Pring	T≎4	0,0	ე ე	1 1 1	OOTG	7-45 E	40°4 4 • 0 • 1 · · · · · · · · · · · · · · · · · ·	7 ● 47	0	) ၁	₹,T	4,●4
Starr Ridge	247B	20	Test Section	31E	5150	1-30	25 • 3	0•9	6.4	% %	14	4.0
GUANO LAKE												
Guano Creek	972	13	363	25E	6480	Meas •S	Meas •Suspended	Indef.	ı	4	വ	4.6
WARNER LAKE												
Camas Creek	V116	Ω	39S	21E	5720	1-30	30.4	6	9.3	о С	11	6.7
					E S E	COAS	E DI	AINA	호] 된]			
UMPQUA RIVER												
Champion	522	12	238	]E	4500	2-1	112.1	38°5p	31.1	0.6	11	13.4
Diamond Lake	743	53	278	SE	5315	1-31	74.2	23.5	19.1	11.8	21	12.6
N. Umpqua nr. Lake Ck.	742	19	203	SE	4215	Measur oment		delayed	15 • 6c	5.6	ဗ	2.7
Trap Creek	741	1	278	4 <b>E</b>	3800	Measurement		delayed	ı	ı	4	3.5
Whaleback	7217	63	318	2至	5140	1-31	98.7	31.5	26.1	ı	10	21.3

OREGON SNOW SURVEYS, FEBRUARY, 1950

Greatest February 1 water content recorded since surveys began. Jan. 15 ပ ည



	LOCATION	1	SHON	SHOT COVER NEASUREMENTS	SUREMENT	S	
				Water Content (In.)	ant (In.)	Past	Past Record
DRAINAGE BASIN			1				
and	Number	Date	Snow			Years	Av.Water
SNOW COURSE	or	of	Depth			Û.	Content
	State Scc. Twp. Range Elev.	v. Survey	$(\operatorname{In}_{ullet})$ 1	(In.) 1950 1949 1948	9 1948	Record	(Inches)
					-		
המזודם החוססם							

OREGON SNOW SURVEYS, FEBRUARY, 1950

ROGUE RIVER												
Al thous e	7216	17	418	7 W	4400	1-31 40.6 11.4 <sup>b</sup>	40.6	11.4 <sup>b</sup>	3.8	1	11	2.1
Annie Spring	831	19	318	<b>E</b> E	6018	1-30	100.2	29.0	31.5	18.4	17	25.8
Big Red Mountain	729	31	4:0S	JW	6500	Measure	ment de	layed	17.4	ı	13	16.6
Billic Creek Divide	722	30	36S	5臣	5300	1-28	63.8	20.0	25 e <sup>c</sup>	13.4	17	14.2
Fish Lake	725	23	378	4臣	4865	1-29	47.2	13.8	19.3c	4.6	15	8.4
Grayback Peak	727	တ	40S	514	0009	Measure	ment de	layed	13.2	1	13	13.6
Hyatt Prairie Reser.	723	12	398	3至	4900	1-31	41.7	6°6	10.2	3.5	15	6.4
Hobart Lake	7221	17	40S	3压	5010	1-30	35.0	90°6	9•9	0•4	~	3.5
Little Red Mtn.	7210	25	40S	W2	6500	Measure	ment de	layed	13.6	1	12	10.8
Park Headquarters	838	ω	318	6.	6450	1-30	126.5	39.8b	38.1	24.2	4	27.6
Scragg Mountain (Calif.)7220	)7220	တ	47N	TOW	6200	Measure	ment de	layed	22 • 0	7.1	8	14.2
Silver Burn	7219	30	308	4 <b>E</b>	3720	2-3	58.0	18.3b	13.3	3.1	12	6.4
Siskiyou Summit	728	17	40S	2E	4630	1-31	40.9	10.4	8•4	9•0	13	4.4
South Fork Canal	7218	12	338	3E	3500	2-3	37.2	11.1b	<b>1.6</b>	0.0	12	2.0
Wagner Butte	7213	H	40S	JW	0069	2-2	49.9	15°4	14.0	8•3	14	9•6
Whaleback	7217	23	218	2正	5140	1-31	98•7	31.5	26.1	•	10	21.3

318 368 368 278 278 348 348 338 19 22 30 30 30 22 22 22 722 834 831 Chiloquin 2/ Crowder Flat (Calif.) Crystal 2/ Fort Klamath 2/ Annie Spring Beatty 2/ Billie Croek Divide Chemult No. 1

17 22 22 17 13 10 20 20 23

4.00 4.00 4.00 6.00 6.00 6.00 6.00

11.0

Measurement delayed 1-31 39.0 9.53 1-31 23.5 7.7

7E 11E 6E 72E

31.5 1.2 25.6 8.2 2.0 2.0

20°02 0°02 4°0 111 6°0

3.0 63.8 41.2 24.0

1-31

1-30 1-31 1-28 2-1

12E 5E 8E

6018 5300 4760 4187 5200 4200 4150

KLAMATH LAKE BASIN

100.2

b Greatest February 1 water content recorded since surveys began c Feb. 15 Fartly estimated

Feb. 15



1950	
FEBRUARY.	
OREGON SNOW SURVEYS.	
SNOW	
OREGON	

			T OCA T	ATTON		i é atrança	SNOWS	COVER.	SNOW COVER MEASIREMENTS	MENTS		
		1	10000	3				We tor	Con+620+	T	Po et	Pact Room
								100 001	001100110	1	1900	n iccoi u
DRAINAGE BASIN												
and	Number					Date	Snow				Years	Av.Water
SNOW COURSE	or					of	Depth				Jo	Content
	State	Sec	Twp.	Sec. Twp. Range	Eleve	Survey	(In•)	1950	1949	1948	Record	(Inches)
KLAWATH LAKE BASIN (Cont'd.)	(Cont'd.)											
					,	,	(	1	•		·	
Gerber	839	12	398	13E	4850	2-1	12.8	3.5	4.8	1	-	4.8
Harriman Lodge 2/		23	368	6臣	4200	Measure	Measurement delayed	ayed	6.57	0.0	23	3.6
Hvatt Prairie Reser.	723	15	398	3E	4 900	1-31	41.7	6.6	10.2	3.5	15	6.4
Kirk 2/		٦	338	7E	4533	2-1	35.0	8.5	8.5	0.9	23	5.1
Take of the Woods No.1	835	11	378	5臣	4960	1-31	45.3	13.7 <sup>b</sup>	11.8	2.7	13	5.7
Park Headquarters	828	8	318	至9	6450	1-30	126.5	39.8b	38.1	24.2	4	27.6
Quartz Mountain	811	N	388	16臣	5320	2-3	22.7	0.9	9•9	E	20	4.8
Quartz Mountain 2/		33	378	16E	5504	2-3	21.0	8•0	5.8	2.2	20	5.2
Sun Mountain	836	22	328	7 <u>2</u> E	5350	1-30	62.8	18.9	19.3	7.8	12	15.7
Tavlor Butte	842	16	338	11E	5100	Not measured	sured		4.8	0.0	13	3.3
Yamsey 2/		20	338	11E	4600	1-31	17.5	4.6	4.1	0.0	19	2.0
1												
GOOSE LAKE BASIN												
Camas Creek	911A	Ŋ	398	21E	5720	1-30	30.4	0	0 0	3.9	11	6.7
Quartz Mountain	811	~	388	16E	5320	2-3	22.7	0.9	9•9	E-1	20	4.8
Quartz Mountain 2/		23	378	16E	5504	2-3	21.0	8.0	5.8	2.5	20	2 • 5
}												

b Greatest February 1 water content recorded since surveys began.

<sup>2/</sup>Water content determined by melting one measured sample (The California Oregon Power Company's station)



The following organizations cooperate in the Oragon snow survey work:

# STATE

Idaho Cooperative Snow Surveys
Nevada Cooperative Snow Surveys
Oregon Agricultural Experiment Station
Oregon State Engineer and corps of State Watermasters
Oregon State Highway Engineers

# FEDERAL

Department of Agriculture
Forest Service
Soil Conservation Service
Department of Commerce
Weather Bureau
Department of the Interior
Bonneville Power Administration
Bureau of Reclamation
Fish and Wildlife Service
Geological Survey
Indian Service
National Park Service
War Department
Army Engineer Corps

# PUBLIC UTILITIES

California-Pacific Utilities Company Portland General Electric Company The California Oregon Power Company

### MUNICIPALITIES

City of Baker City of Corvallis City of LaGrande City of The Dalles

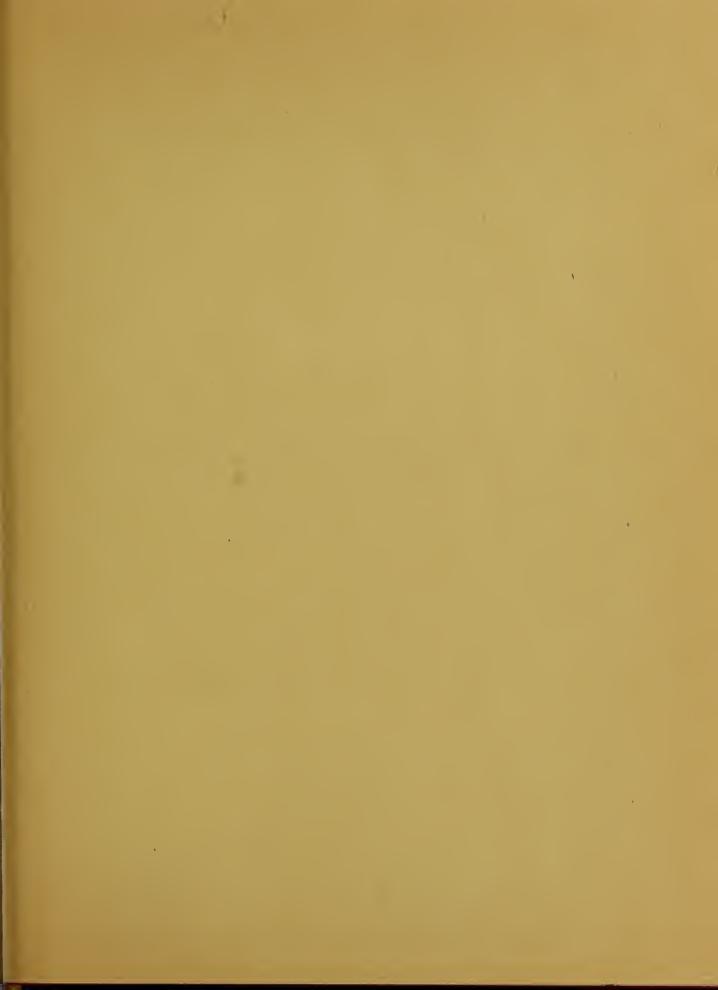
#### IPRIGATION DISTRICTS

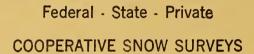
Associated Ditch Companies
Central Oregon Irrigation District
Deschutes County Municipal Improvement District
East Fork Irrigation District
Grants Pass Irrigation District
Jordan Valley Irrigation District
Lakeview Water Users Incorporated
Medford Irrigation District
Ochoco Irrigation District
Rogue River Irrigation District
Talent Irrigation District
Vale-Oregon Irrigation District
Warmsprings Irrigation District

### PRIVATE ORGANIZATIONS

Amalgamated Sugar Company South Wasco Soil Conservation District The Crag Rats-Hood River-Oregon







Furnishes the basic data necessary for forecasting water supply for irrigation, domestic and municipal water supply, hydro-electric power generation, navigation, mining and industry

"WATER IS THE WEST'S GREATEST RESOURCE"